CLAIMS

- 1. A method of transmission of data messages between a plurality of stations interconnected by a bus line, wherein each said message includes a frame portion representing content and priority information of the data message and a data portion representing data to be transmitted, the method comprising the steps of causing at least one said station to transmit a data message on to the bus line such that said frame portion thereof is transmitted at a first data transmission rate, and the data portion thereof is transmitted at a second data transmission rate not less than said first data transmission rate, and adjusting said first and/or second data transmission rate in dependence on a signal quality determined for transmission on said bus line.
- 2. A method according to claim 1, further comprising the step of causing at least one further station to transmit onto the bus line, an acknowledgement signal indicating receipt of a said data message.
- 3. A method according to claim 2, further comprising the step of causing at least one said station to transmit a further said data message in response to transmission of a said acknowledgement signal.
- 4. A method according to claim 2 or 3, further comprising the step of retransmitting a said message if no acknowledgement signal is received.
- 5. A method according to claim 4, further comprising the step of generating an error message prior to re-transmission of said message.
- 6. A method according to claim 5, further comprising the step of adjusting said first and/or second data transmission rate in dependence on the frequency of generation of said error messages.
- 7. A method according to claim 1, further comprising the step of determining the frequency of received data messages comprising an error and adjusting said first and/or

second data transmission rate in dependence on the frequency of received data messages comprising an error.

- 8. A method according to claim 7, further comprising determining received signal strength for a data message and adjusting said first and/or second data transmission rate in dependence on said received signal strength determination in combination with said frequency of received data messages comprising an error.
- 9. A method according to any one of the preceding claims, wherein said frame portion contains information representing a station to which the message is directed.
- 10. A method according to any one of the preceding claims, wherein the frame portion contains information representing the size of the corresponding data portion.
- 11. A method according to any one of the preceding claims, wherein the second data transmission rate is an integral multiple of said first data transmission rate.
- 12. A method of transmission of data messages between a plurality of stations interconnected by a bus line, the method substantially as hereinbefore described with reference to Figures 4 and 5 of the accompanying drawings.
- 13. Apparatus for transmitting data messages between a plurality of stations interconnected by a bus line, each of said data messages including a frame portion representing content and priority information of the data message and a data portion representing data to be transmitted, the apparatus comprising:

means for transmitting a data message on said bus line such that said frame portion thereof is transmitted at a first data transmission rate, and said data portion thereof is transmitted at a second data transmission rate not less than said first data transmission rate; and

means for adjusting said first and/or second data transmission rate in dependence on a signal quality determined for transmission on said bus line.

- 14. Apparatus according to claim 13, further comprising means responsive to receiving a data message to transmit an acknowledgement signal on said bus line.
- 15. Apparatus according to claim 13 or 14, further comprising means responsive to an acknowledgement signal to transmit a further said data message.
- 16. Apparatus according to any one of claims 13 to 15, further comprising means for re-transmitting a message if no acknowledgement signal is received.
- 17. Apparatus according to claim 16, further comprising means for generating an error message prior to re-transmission of said message.
- 18. Apparatus according to claim 17, further comprising means for adjusting said first and/or second data transmission rate in dependence on the frequency of generation of said error messages.
- 19. Apparatus according to claim 13, further comprising means for determining whether a data message comprises an error.
- 20. Apparatus according to claim 19, said means for determining whether a data message comprises an error including a Cyclic Redundancy Checker.
- 21. Apparatus according to claim 20, further comprising an error register for holding a value indicative of the level of received messages comprising an error, and means for decrementing said value for a received data message determined not to comprise an error and incrementing said value for a received data message determined to comprise an error.
- 22. Apparatus according to claim 13 or any one of claims 19 to 21, further comprising a received signal strength measurement unit for measuring signal strength of a received data message.



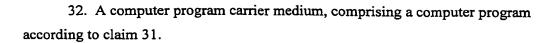
Apparatus according to claim 22, further comprising a signal strength register for holding a value representative of received signal strength.

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- Apparatus according to claim 21, further comprising processing means for 24. adjusting said first and/or second data transmission rate in dependence on the content of said error register.
- Apparatus according to claim 23, further comprising processing means for 25. adjusting said first and/or second data transmission rate in dependence on the content of said signal strength register.
- Apparatus according to claim 25 and 24, said processing means configured to adjust said first and/or second data transmission rate in dependence on the content of said error register and said signal strength register.
- Apparatus according to any one of claims 13 to 26, wherein said frame 27. portion contains information representing a station to which the message is directed.
- Apparatus according to any one of claims 13 to 27, wherein the frame portion 28. contains information representing the size of a corresponding data portion.
- Apparatus according to any one of claims 13 to 28, wherein the second data 29. transmission rate is an integral multiple of said first data transmission rate.
- Apparatus for transmitting data messages between a plurality of stations interconnected by a bus line, the apparatus substantially as hereinbefore described with reference to Figures 6 and 7 of the accompanying drawings.
- A computer program comprising computer program means for configuring a 31. processor to operate in accordance with any one of claims 1 to 12.









33. A computer program carrier medium according to claim 32, comprising one of a magnetic storage medium, optical storage medium, solid state storage medium or communications carrier medium.